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DIVISION OF INDUSTRIAL HYGIENE
OHIO STATE BOARD OF HEALTH
ARE YOU IN BUSINESS FOR YOUR HEALTH?

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M.H.

Are You In Business For Your Health?

IF NOT, YOU OUGHT TO BE

A QUESTION WHICH MEANS

A Great Saving to Employer and Worker Alike

**STANDARDS to be Observed in Developing Personal
EFFICIENCY AND PRODUCTION**



OLD AGE TWENTY YEARS TOO SOON

WHY?

Third (revised) edition. Issued March, 1916.

DIVISION OF INDUSTRIAL HYGIENE—OHIO STATE BOARD OF HEALTH

E. F. McCAMPBELL, Ph.D., M.D., Secretary and Executive Officer, Columbus, Ohio

10-10000

THE SITUATION

PREVENTABLE DISEASES take off 43% of all workers.

EXCEPT THE FARMER only 13% of occupied persons reach the age of 70 years.

THE CHANCES OF LIVING as long as our fathers are steadily decreasing for all who have reached 40 years of age.

HEART DISEASES cause, in Ohio, one-seventh of all deaths. Over half occur before the allotted 70 years of life. One-fourth occur before 50 years of age.

Deaths from Heart Diseases are increasing at the rate of over 5% annually.

ALL FORMS OF CHRONIC DISEASES are more **PREVALENT** in America than anywhere else in the civilized world. They are also **INCREASING** more rapidly in America than in any civilized country in the world.

THE CAUSES

- I. Forgetting personal hygiene or the **LAWS OF HEALTH** in the midst of greater civilization.
- II. Personal ignorance of **ONE'S OWN SELF**, as made known by physical examinations.
- III. Presence of **DANGERS IN THE SURROUNDINGS** which cause sickness or add to sickness already present. These dangers are constantly increasing as time and civilization go on.
- IV. No help when once down, or **LACK OF INSURANCE PROTECTION**.

THE CURE

- I. **LAWS OF HEALTH** — Fifteen in Number: Consult "How to Live" by Fisher and Fisk, The Life Extension Institute, N. Y. City.
 1. Ventilate every room you occupy.
 2. Wear lightweight, loose and porous clothes.
 3. Get out of doors. Recreate, do not dissipate.
 4. Breathe night-air at night time — open your bed-room windows.
 5. Breathe deeply — 100 times each day.
 6. Avoid over-eating and over-weight.
 7. Eat sparingly of meat and eggs.
 8. Eat some hard, some bulky and some raw foods, especially vegetables and fruits.
 9. Eat the first three mouthfuls slowly. Eat the balance slowly. Drink water principally between meals.
 10. Go to stool regularly and frequently.
 11. Stand, sit and walk erect.
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 15. Keep serene.
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 1. Remember that not one person in one hundred is physically perfect these days; for instance, your blood-pressure may be too high, or your heart action weak, or your kidneys affected, or your lungs "touched", all without signs which have seemed important to you.
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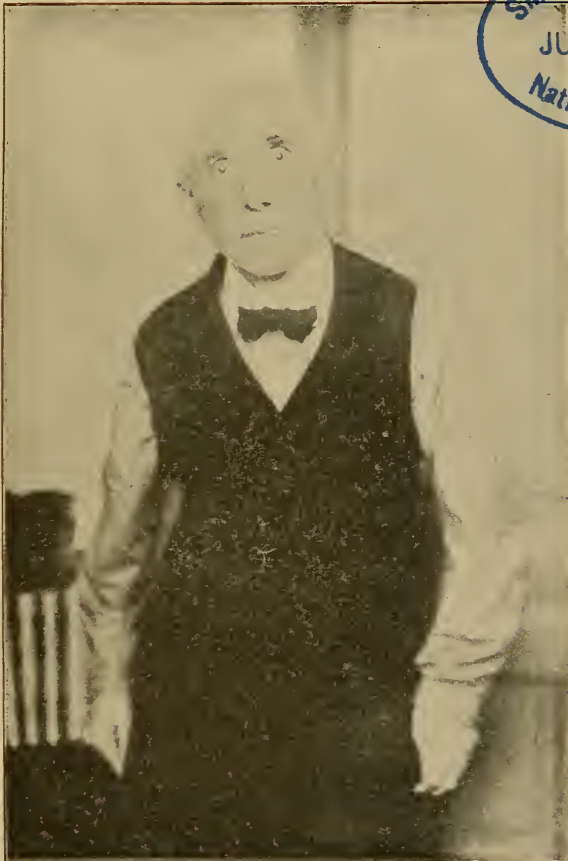
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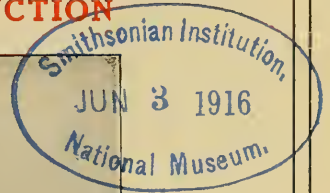
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EMPLOYMENT HEALTH DATA

Note: Use X for slight hazard (within limits of natural TOLERATION); XX, more marked hazard (but within limits of natural ADAPTATION at least for a time); XXX, bad hazard (is producing DISEASE, or will rapidly do so).

NAME: Surname Given name ADDRESS: No. Street City State Date: National Museum 1916

Age Sex M. S. W. D. Place of birth Nativity of parents Religion Date of immigration Time in this vicinity HOME: Congested: neighborhood, house, apartment, tenement. No. floors Vent. Light Dampness Heating Renter Owner Boarder Home industry No. adults No. children Sleeping room: Vent., Light, Dampness, Heating, No. pres. Bathing facilities Toilets Organization memberships HABITS: Food Clothing Spent time Dissipative Recreative Other work Sleep

UNEMPLOYMENT CAUSES:

INDUSTRIAL DATA:

Names of Employers		Addresses of Employers		Industry	Occupation	Census Symbol	Date Began	Date Stopped
1.								
2.								
3.								

WORK PLACE: (Specify which employer: 1, 2 or 3)

HOURS:

Day Night Overtime Noontime Other recesses Per week Steadiness Seasons

HAZARDS

DUST: Type Amount; breathed, skin, eyes; prevention, confinement, removal, respirators, carelessness; dry sweeping, dusting or cleaning during work hours; promotes inefficiency, sickness. WHY HAZARDOUS (suggestions) DISORDER: (DIRT), Building structure, floors, surroundings, materials, insufficient cleaning, ordering; negligence; promotes low standards, inefficiency and injuries.

(OVER)

HAZARDS—(Continued)

HUMIDITY: Water, steam, vapors, dampness; confined dampness or dryness; promotes injuries, sickness and inefficiency.....

ILLUMINATION: Obstructed surroundings, limited window space, lighting (AEGCO and by process); shadows, contrasts, flickering, glare, brilliancy, colors; poor shades, eye shades, goggles, helmets, screens; dark-room work; facing light source; promotes sickness, injuries, inefficiency.....

AIR: Stagnation, room temperature (high?), humidity (low?); fine dust, smoke, leaks of gas, vapors, fumes; open fires, gas flames; very close confinement; promotes sickness, and inefficiency.....

HEAT: Insufficient protection, rest intervals, drinking facilities, showers, baths, lockers, change rooms, clothes-drying quarters; long hours; permitting undue exposure; promotes sickness, injuries and inefficiency.....

COLD: Insufficient heating, clothing, drafts, inactive work, alternations with heat, outdoor closets; weather exposure; basement work; promotes sickness and inefficiency.....

FATIGUE: Laborous work, long hours, piece work, speeding up, monotony, constant standing, prolonged strains, chairs without backs, faulty postures, hard floors, jarring processes, pressures against body, eye strain, noise; insufficient rest periods, female quarters, variations, rotations, recreations.....

INACTIVITY: Sedentary work, limited movements, mental concentration, confined work space.....

PRESSURES: Caisson work, diving, high altitude, concussion. **ODORS:** Sickening. **ELECTRICITY:**.....

INFECTIONS: Materials.....insects, animals, persons; mouthed articles, short intervalled handling of objects, wiping rags, oil; frequent trivial injuries, burns, flying particles; proximity to others, spitting on floors, common towels, cups; insufficient wash places, closets, gloves, goggles, cuspidors, rules, medical care, physical exams, first aid, hospital arrangements.....

Veneral diseases: suggestive pictures, writings, language—especially where sexes work together.....

POISONS: Name and form.....amt. of risk, worker ignorant, careless; instructions insufficient, disregarded,

wrongful, harmful; mislabeling; eating at work, in work room; mustache, beard, indifference, medical supervision, gloves, respirators, clothes, lockers, washing facilities, lunch room.....

Mechanical protection.....work variation, rotation.....

THIRST: Drinking water not good, or convenient, or properly cooled, improper beverages preferred.....

ALCOHOLISM AND DESIRE FOR STIMULANTS: Thirst, dust, fatigue, tradition, habit, physical weakness; permitted during work; saloons near, ignorance of effects; no home gardens, no efficiency department.....

Signed.....

N. B. In addition to the marks X, XX, and XXX, use L for hazards which are due to the Locality (or neighborhood), and S for hazards which belong to the Space (or work room) in which the work is done. All other hazards are presumed to be due to the nature of the Process itself.

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Smithsonian Institution,
JUN 3 1916
National Museum

STATE DEPARTMENT OF HEALTH--DIVISION OF INDUSTRIAL HYGIENE
PERSONAL HEALTH DATA

Note: Use X for slight defect; XX, more marked; XXX, very marked; R, right, L, left, as required. DATE,

IDENTIFICATION: Name		Surname		Given name		Address		No.		Street	
Age	Sex	M.	S.	W.	D.	Place of birth		Nativity of parents		Religion	
Apparent age	Height	Weight		Posture		Gait		Gross deformity		Date of immigration	
Degree of intelligence		Ability to understand English		Miscellaneous		Apparent general condition of health					
PREVIOUS HEALTH:											
Medical or surgical attention, especially since 12 yrs. of age, such as:											
Diseases											
Mutilations											
Fractures											
Cures											
Health migrations											
Venereal diseases											
PRESENT HEALTH (Complaints):											
HABITS: { Present											
{ Past											
FAMILY:											
Tuberculosis											
Alcohol											
Tobacco											
Coffee											
Tea											
Drugs											
Gum											
INTEREST:											
In own health											
Arterial disease											
Cancer											
Insanity											
PHYSICAL EXAM.—HEAD:											
Gray hair											
Parasites											
Scalp disease											
Deformity											
EYES (Snellen Chart):											
Without glasses											
With glasses											
Pallor											
Suffusion											
Cyanosis											
Skin dis.											
Deform.											
Color blindness											
Squint											
Proptosis											
Diplopia											
Nystagmus											
Increased tension											
Lid reflex											
Deformity											
Disease											
Puffiness											
Icterus											
Pallor											
Injection											
Pterygium											
Pupils: unequal, contracted, dilated, irregular, opacity, reflexes											
Hearing											
Wax											
Cotton											
Discharge											
Odor											
Eczema											
Tender mastoid											
Scars											
NOSE:											
Obstructed breathing											
Nasal voice											
Ozeana											
Deformity											
LIPS:											
Color											
Movements											
Defects											
Teeth:											
Tartar											
Caries											
Irregularity											
Malocclusion											
Absence											
Odor											
Dental work											
Use of brush											
GUMS:											
Retraction											
Redness											
Ptyorhoea											
Discolor											
Atrophy											
TONGUE:											
Coated											
Defects											
Movements											
VOICE:											
TONSILS:											
PHARYNX:											
TEMPERATURE:											
(OVER)											

NECK:	Coffer		Glands		Pulsations		Scars		Movements	
CHEST:	Skin affections		Flatness		Sunken apices		Emaciation		Limited expansion	
	Bronchitis		Pleurisy		Tuberculosis		Pneumonia		Empysema	
	Valvular disease				Myocarditis		Pericarditis		Sloop	
ABDOMEN:	Skin affections		Adiposity		Distension		Dullness (thanks)		Ventral hernia	
	Spleen?		Kidneys?		Viscerotoposis		Tender points		Liver?	
									Abnormal swellings	
PELVIS, GENITALS & RECTUM:	scars		Hernia		Patency of rings		Adenitis		Varicocele	
	Deformities		Skin affections		Venereal diseases		Hemorrhoids		Fistula	
EXTREMITIES:					Defects or diseases of female organs					
	Toes		Toe nails		Soles		Pulse at ankles		Patellar reflexes	
	Fingers				Hands		Wrists		Arms	
	Pulse (both wrists)				Arteriosclerosis (radial, brachial)		Glands		Misc.	
BLOOD PRESSURE:	{ Before exercise									
	{ After exercise				Systolic		Diastolic		Pulse pressure	
URINE:	Appearance		Sp. gr.		Reaction		Sediment		Albumin	
MENTALITY TESTS:	Day		Month		Date		Year		Place	
	Counts 1-20		Counts 20-1		Mistakes		Repeats figures		Grasps funny story	
	Cube tests: line				Trials		Reverse		Alternates	
MISC.									Mathematics	
SUMMARY										
DISPOSITION										

Signed _____

CERTIFICATE OF INDUSTRIAL DISEASE

NAME OF PATIENT

ADDRESS: Street and No.

City or Village

PERSONAL AND STATISTICAL PARTICULARS			MEDICAL CERTIFICATE OF DISEASE	
Sex	Age	Color	Country of birth	
Single, married, widowed or divorced (<i>write the word</i>)			Diagnosis of present illness	
Occupation			Chief symptoms and conditions	
(a) Present trade, profession or work				
Particular kind of work in such trade, etc.			Date first symptoms appeared	
Date of entering present occupation			Complicating Diseases (such as alcoholism, syphilis, tuberculosis, etc.)	
Employer's name				
Address				
Business (kind of goods made or work done)				
(b) Previous occupations:			Additional facts	
Name of occupation		Entered (year)		
		Left (year)		
Previous illnesses, if any, due to occupation:				
Disease or illness		Year	Date of diagnosis	
			(Signed) _____, 191____, M. D.	
			(Address) _____, 191____ (Address)	

Mail to STATE BOARD OF HEALTH, Hartman Building, Columbus.

(Over)

OHIO STATE BOARD OF HEALTH COLUMBUS

AN ACT — To Require the Reporting of Certain Occupational Diseases — (Passed March 25, 1913.)

SECTION 1. Every physician in this state attending on or called in to visit a patient whom he believes to be suffering from poisoning from lead, phosphorus, arsenic, brass, wood-alcohol, mercury or their compounds, or from anthrax, or from compressed-air illness, or any other ailment or disease, contracted as a result of the nature of the patient's employment, shall within forty-eight hours from the time of first attending such patient send to the State Board of Health a report stating:

(a) Name, address and occupation of patient. (b) Name, address and business of employer. (c) Nature of disease.

(d) Such other information as may be reasonably required by the State Board of Health.

The reports herein required shall be made on, or in conformity with, the standard schedule blanks hereinafter provided for. The mailing of the report, within the time required, in a stamped envelope addressed to the office of the State Board of Health, shall be a compliance with this section.

SECTION 3. Reports made under this act shall not be evidence of the facts therein stated in any action arising out of the disease therein reported.

AN ACT — For the Prevention of Occupational Diseases with Special Reference to Lead Poisoning.

SECTION 7. Every physician * * * * * finding what he believes to be symptoms of lead poisoning shall * * * * * within forty-eight hours after such examination and finding * * * * * send a report thereof in duplicate, one copy to the State Department of Factory Inspection and one to the State Board of Health. * * * * * The examining physician shall also, within the said forty-eight hours, report such examination and finding to the employer. (Passed April 18, 1913.)

These forms are furnished by the State Board of Health and should be used for all reports. In filling out, note carefully the instructions below.

INSTRUCTIONS FOR FILLING OUT CERTIFICATE

In General. The *medical certificate* on the right hand side the physician alone can furnish. The *personal and statistical particulars* on the left hand side must be secured by the physician either from the patient, or, in fatal cases, from the family precisely as for similar information in certificates of death sent to boards of health.

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E. F. McCAMPBELL, M. D., Secretary.

614.
Smithsonian Institution
JUN 3 1913
Referred to Secretary

OHIO STATE BOARD OF HEALTH

CERTIFICATE OF INDUSTRIAL DISEASE

NAME OF PATIENT _____

ADDRESS: Street and No. _____

City or Village _____

WRITE PLAINLY WITH INK—THIS IS A PERMANENT RECORD

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PERSONAL AND STATISTICAL PARTICULARS

Sex	Age	Color	Country of birth
-----	-----	-------	------------------

Single, married, widowed or divorced (*write the word*) _____

Occupation

(a) Present trade, profession or work _____

Particular kind of work in such trade, etc. _____

Date of entering present occupation _____

Employer's name _____

Address _____

Business (kind of goods made or work done) _____

(b) Previous occupations:

Name of occupation _____

Entered
(year) _____Left
(year) _____

Previous illnesses, if any, due to occupation:

Disease or illness _____

Year _____

MEDICAL CERTIFICATE OF DISEASE

Diagnosis of present illness _____

Chief symptoms and conditions _____

Date first symptoms appeared _____

Complicating Diseases (such as alcoholism, syphilis, tuberculosis, etc.) _____

Additional facts _____

Date of diagnosis _____, 191____

(Signed) _____, M. D.

_____, 191____ (Address) _____

Mail to STATE BOARD OF HEALTH, Hartman Building, Columbus.

(Over)

OHIO STATE BOARD OF HEALTH COLUMBUS

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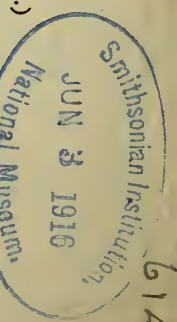
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NAME OF PATIENT _____

ADDRESS: Street and No.

City or Village

PERSONAL AND STATISTICAL PARTICULARS				MEDICAL CERTIFICATE OF DISEASE	
Sex	Age	Color	Country of birth		
Single, married, widowed or divorced (<i>write the word</i>)				Diagnosis of present illness	
Occupation				Chief symptoms and conditions	
(a) Present trade, profession or work					
Particular kind of work in such trade, etc.				Date first symptoms appeared	
Date of entering present occupation				Complicating Diseases (such as alcoholism, syphilis, tuberculosis, etc.)	
Employer's name					
Address					
Business (kind of goods made or work done)					
(b) Previous occupations:		Entered (year)	Left (year)	Additional facts	
Name of occupation					
Previous illnesses, if any, due to occupation:			Year	Date of diagnosis	
Disease or illness				(Signed) _____, 191____, M. D	
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OHIO STATE BOARD OF HEALTH

COLUMBUS

614

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OHIO STATE BOARD OF HEALTH
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Single, married, widowed or divorced (<i>write the word</i>) _____				
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Particular kind of work in such trade, etc. _____				
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Name of occupation			Entered (year)	Left (year)
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614.

PRINTERS

AVOID CONSUMPTION

AVOID LEAD POISONING

Library of Congress
JUN 2 1916
National Bureau

CONSUMPTION causes 29 out of every 100 deaths among printers. Stagnant air, fumes, gases, lead poisoning, lack of exercise, and forgetting to breathe deeply (100 times each day) are the main reasons.

Hoods must be placed over linotype METAL POTS, and have pipes connecting, and leading out

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JUN 4 1916
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Hoods should be placed over linotype METAL POTS, and have pipes connecting, and leading out of doors.

Remember, pig-lead used in LINOTYPING is softer than lead of type. Handle it as little as possible. Then keep fingers away from mouth and lips.

Drop pig-lead carefully into melting pot. SPLASHINGS of molten lead dry later and become lead dust.

Do not shake crucible in order to blend MOLTEN LEAD better. It will blend of itself.

PLUNGERS on linotype machines should never be cleaned in the work room. Clean them in boxes in the open air. Avoid inhaling the dust.

GRAPHITE used for lubricating is not poisonous, but all dust is irritating to the lungs.

Avoid LEAD DUST, as much as possible, when trimming and mitreing, or when sawing.

Remove LEAD DUST from type cases in the open air, or by means of a vacuum cleaner.

Never put TYPE into the mouth, or moisten fingers to get hold of type.

Benzine and other cleaners occasionally contain DEADLY POISONS, which poison if gotten onto the skin or when inhaled.

Insist upon having GOOD VENTILATION in the office or factory, and insist that FLOORS SHOULD NOT BE SWEPT during working hours.

Suggest to your employer that walls and ceiling of work room, if not of smooth, WASHABLE SURFACE, should be lime-washed once a year; that close-fitting floors which can be cleaned by moist methods are desirable; and that type-cases should fit closely on the floor, or have legs high enough to brush under.

Eat a good breakfast before beginning work. Food in the stomach, especially MILK, helps to prevent lead-poisoning.

Do not eat FOOD or use TOBACCO, while at work, until you have washed your hands, because of the danger of actually feeding lead to yourself. Do not use a "common" DRINKING CUP; such a cup may be employed by a tuberculous or otherwise infected person. Wash hands thoroughly with warm water and soap. Have your own towel and soap. Rinse the mouth and clean the fingernails before eating. Don't use fingernails for TOOTH PICKS.

Don't spit on the floor. Use CUSPIDORS and see that they are cleaned daily.

Eat your LUNCH outside of the work room.

Do not wear WORKING CLOTHES too long without change.

Hang STREET CLOTHES where they will not be exposed to the dust of the work room.

Gas and electric lights should be shaded to prevent a glare. The EYES should be EXAMINED from time to time by a competent physician. Avoid ruining your sight by giving early attention to eye-strain. Headaches, blurred vision, red and inflamed eyes, dancing spots before the eyes, twitching of the eye-lids, are some of the first signs of eye-strain.

Insufficient LIGHT may impair the general health.

BATHE frequently, and brush the TEETH each night.

Avoid ALCOHOL. It increases the danger of lead-poisoning.

Have a good BOWEL MOVEMENT each day.

EXERCISE in the fresh air as much as possible.

BE EXAMINED BY A DOCTOR occasionally to protect yourself against the effects of your trade.

ISSUED JANUARY, 1916

Division of Industrial Hygiene
Ohio State Board of Health

E. F. McCAMPBELL, Ph.D., M.D.

Secretary and Executive Officer

COLUMBUS, OHIO





Smithsonian Institution
JUN 8 1916
National Archives

Instructions to Employees in Dusty Trades

DANGERS OF DUST

1. Don't breathe dust of any kind—it causes colds, consumption and pneumonia.
2. Don't sweep during working hours—it spreads germs of all kinds.
3. Don't work in dusty air. Stop the dust or wear a dust protector over your mouth and nose.
4. Dust breathed into your lungs is never breathed out again.
5. If you breathe dust you are bound to cough.
6. Coughing or spitting is nature's warning that your lungs are in danger.
7. If you hem or cough every day see a doctor at once.

OHIO STATE BOARD OF HEALTH

E. F. McCampbell, Ph.D., M.D.

Secretary and Executive Officer





NOTICE--INSTRUCTIONS TO EMPLOYEES

HOW TO PREVENT LEAD POISONING

- (1) All workers exposed to *lead dusts, lead fumes, lead solutions and lead compounds* are liable to *poisoning*. These poisons get into the body through the *nose* while breathing, or through the *mouth* when chewing, or swallowing, or wetting the lips.
- (2) Do all you can to *keep down dust*. When sweeping or cleaning, always dampen with water, oil or wet sawdust. Where dust can not be kept down, you must wear a *respirator*. This must be cleaned out at least once a day.
- (3) *Eat breakfast before going to work*. Drink milk at meals, and if possible once between meals. *Do not eat meals in workroom*. Leave workroom at meal times.
- (4) Keep *dirty fingers* out of your mouth, and off of your food, and whatever goes into your mouth. *Wash hands, arms and face* with warm water and soap before eating, going to the toilet, or quitting the workroom. Clean your lips and rinse out your mouth before eating or drinking.
- (5) A *mustache*, if worn, must be kept short. Do not wear a *beard*. Keep *finger nails* clean and cut short, also loose skin about the nails or hands.
- (6) Do not chew *tobacco or gum* while at work. Avoid the use of *intoxicants* in any form, as they promote lead poisoning.
- (7) Take a *full bath* with warm water and soap at least *twice a week*.
- (8) You must wear *overalls and jumpers* while at work. Wear a cap if exposed to dust or fumes. *Do not wear your working clothes outside of the working place*.
- (9) *Keep your bowels moving* if possible once a day. *Report to your foreman* if you notice (1) loss of appetite, (2) poor sleep, (3) indigestion, (4) continual constipation, (5) vomiting, (6) pains in stomach, (7) dizziness, (8) continual headache, or (9) weakness in arms, limbs or body.

NOTE: Lead poisoning brings on Paralysis of the wrists and arms, hardens the arteries, causes chronic diseases, and hastens old age and death. **WORKMAN, PROTECT YOURSELF.** Your employer and the Board of Health cannot do all for you. **OBSERVE THE ABOVE PRECAUTIONS.**

OHIO STATE BOARD OF HEALTH,

E. F. McCAMPBELL, Ph.D., M.D.,

Secretary and Executive Officer.

Columbus, Ohio.



PAINTERS

Avoid Lead Poisoning

MOST PAINTS, FILLERS AND SOME DRYERS CONTAIN LEAD

Lead does not get into the body through the skin. It gets in through the nose or mouth. Hence it should be easy to avoid lead poisoning.

Furthermore, 19 out of every 100 deaths among painters are due to **CONSUMPTION**. Twice as many painters die of consumption as carpenters. Undoubtedly working with poisons causes the difference. Poisons predispose to consumption.

Eat a good breakfast before beginning work. A **FULL STOMACH** lessens the danger of lead poisoning.

MILK is the best antidote for lead. Drink it at lunch or during the day.

Do not put food or tobacco into your mouth with dirty **FINGERS**. In other words, do not feed lead to yourself.

RINSE OFF LIPS before eating or drinking. Keep mustache short so as not to touch your food or drink. A mustache is a danger since it collects dust.

Wash **HANDS** thoroughly with warm water and soap before eating whenever you can. Otherwise hold sandwiches, pie, etc., between clean pieces of paper.

Eat your **LUNCH** outside of the room or place where painting or sanding is done.

Keep fingernails clean. Do not use them for **TOOTH PICKS**.

It is a good plan to rinse out your mouth before eating or drinking.

When sanding avoid breathing the **DUST** or allowing it to settle on your lips. Wear some sort of a respirator which will keep you from breathing the dust.

While **SANDING** do not chew tobacco or gum. The chewing movements always cause a little swallowing which **YOU DO NOT NOTICE**. Licking the lips, chewing and this "little swallowing" causes the most of lead poisoning.

Do not moisten your lips with your tongue. Each time you lick in some lead particles which have settled on your lips.

Prevent **DUST** as much as possible. Look out for dirty, dusty drop-cloths. Do not shake them.

When possible do sanding with a little **MINERAL OIL** present to absorb the dust. Such oil is cheap and can be used on almost any kind of work.

Do not put tobacco in outside **POCKETS** where dust collects. Such dust usually contains some lead.

Brush your **TEETH** at least in the morning and at night, the latter before going to bed.

Avoid **ALCOHOLIC DRINKS** — they make you more liable to lead poisoning.

Do not use a dirty cloth or rag to wipe off your face, nose or lips.

Have a good **BOWEL MOVEMENT** each day — best time is just after breakfast. Make the habit regular.

Hang street **CLOTHES** away from the paint and dust of the work place.

Have overalls and jumpers washed at least once a week.

Painters should get a good bath at least once a week, and use plenty of **SOAP**.

Remember also that all **DRYERS** and **PAINT REMOVERS** are very poisonous. Do not breathe their fumes or odors in a closed-up space. Have good ventilation.

TURPENTINE damages the kidneys sooner or later.

BE EXAMINED BY A DOCTOR OCCASIONALLY.

SYMPTOMS:

Have you ever had rheumatism, kidney, stomach, or heart trouble? Each may be due to lead.

Some **SYMPTOMS** of actual **LEAD POISONING**—

Cramps in stomach or bowels

Constipation

Bluish lines on gums

Diarrhoea

Nausea

Foul taste in mouth

Severe headache

Loss of weight

Loss of strength

Pains in joints or back

Numbness of arms or fingers

Weakness of wrist or toe

Acting strangely

Tremors

Dizziness or dizzy spells

Nervousness

Pailor

Wrist-drop or "palsy"

ISSUED JANUARY, 1916

Division of Industrial Hygiene

OHIO STATE BOARD OF HEALTH

E. F. McCAMPBELL, Ph.D., M.D.

Secretary and Executive Officer

COLUMBUS, OHIO



II. AVOID DANGERS TO HEALTH — Know What They Are. Here are some of them and their limits:

1. The AIR in most buildings heated by stoves, furnaces, steam or hot water is stagnant, too hot and too dry — dryer than that of the Sahara Desert. Hence sore throats, colds, and many forms of sickness.

GOOD AIR:

CIRCULATES — and by so doing tones up the human system by striking the skin, thus improving the blood-flow, and removing the "envelope of heat" which is given off by the body and constantly surrounds it. Use electric fans or cloth-windows or window-boards or ventilators. A just perceptible "breath" is enough (or air blowing 5 to 10 feet per second).

Has RELATIVE HUMIDITY of 45 to 65%. Learn the use of the wet-bulb thermometer. When not too cold, proper moisture can be had by admitting outdoor air (note cloth-windows). It may take 10 to 20 gallons of water per day for a six-room house. Few, if any, pan and water schemes will evaporate this amount of water.

Has a TEMPERATURE (indoors) of from 60 to 68° F. This temperature feels perfectly comfortable when the air is properly moistened — it also saves on the coal bill.

Has no irritating FLOATING PARTICLES — dust, smoke, etc.

Has no noticeable GASES, FUMES OR VAPORS — these are especially dangers of modern industries. Any ODOR should be pleasant — the air should be just like that supplied by Nature.

Not POLLUTED by disease germs. Most so-called "air-borne diseases" are really caught by contact with, or close approach to, persons carrying the germs. Such "carriers" may not themselves be sick and also may be in total ignorance of their own menace. Avoid touching persons as much as possible. Keep beyond the breathing range, and, finally, wash your hands often to prevent carrying disease to your face and mouth.

2. GOOD ILLUMINATION means:

STEADY LIGHT from over the shoulders — 5-10 foot-candles of ARTIFICIAL light for ordinary eye work, 5 f. c. in foundries and similar places, and 3 f. c. on the floors of general workrooms. Daylight COLOR is the best. DAYLIGHT should be three times stronger than artificial light. (A foot-candle is the amount of light given by a standard candle one foot away).

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GOOD EYE-SIGHT — perhaps, after all, your eye-sight is defective and your eyes need examining — most headaches are from eyestrain — eyestrain may be as fatiguing, also, as the most arduous work.

3. POISONS. Workers with poisons should be properly instructed in their use.

The COURTS have decided that the responsibility of such instruction rests upon the employer. In Ohio the State Department of Health stands prepared to issue INSTRUCTIONS for the avoidance of poisoning of all sorts. Most poisonings occur because employers and workers both CONSIDER the substances dealt with as too innocent to cause much harm. This attitude has unfortunately caused an immense amount of sickness, numerous deaths, and many LAW SUITS for large amounts of money. The State Laboratories will analyze suspected poisons used in connection with work, provided the sources, uses and reasons for the analyses are stated. The Department of Health will also supply INFORMATION as to the maximum amount of poisonous substances which can be present in the air or may be taken into the system without causing symptoms — This insofar as it has information or can secure the same. By law, all instances of poisoning in connection with work must be brought TO THE NOTICE of the State Department of Health, which Department furnishes the proper blanks for recording the information and investigates the occurrence with a view to finding out how to avoid similar mishaps. Such reports cannot be used as evidence of the facts therein in any action arising out of the disease

therein reported. Most poisonings occur through workers poisoning themselves, which is due to IGNORANCE or DISREGARD of instructions, but upon the employer rests the responsibility of supervision. The more COMMON POISONS used in the State of Ohio are about in order of their frequency of use and their liability to produce occupational disease: lead, benzine and benzol (naphtha, petrol, gasoline, etc.), turpentine and similar dryers, brass or zinc in the form of fumes; acids, alkalis, wood alcohol, anilin oil, carbon bisulphide, antimony, illuminating and fuel gas, sulphurated hydrogen, arsenic, phosphorus and mercury.

4. **FATIGUE.** A tired feeling is nature's warning to rest. Getting tired depends largely upon who you are and how well you may be. Work should promote health and a sense of well-being. "So tired" should never be heard at the end of a day's work, as it signifies exhaustion. All straining or heavy or rapid work should be tempered or subjected to changes so that no feeling of exhaustion results. This applies to the eyes, or to the hands, as well as to the whole body. True "Scientific Management" observes these principles and makes use of several methods of doing routine work. On the other hand, TOO LITTLE EXERCISE is a serious danger to large numbers of persons who are not actively employed. Variation, which will allow exercise, is the secret of efficiency and steadfastness. The best standard for fatigue or inactivity is that "tired feeling". Avoid it.
5. **TEMPERATURE.** The exposure to heat produces thermic fever if the temperature goes beyond that of the human body (98.6°); beyond this, prostrations, muscular cramps and anemia are produced. Premature old age is a common result. When COMBINED WITH MOISTURE the effects upon the health are very much worse. For the best work, neither the wet nor dry thermometer should exceed 70° F. The shower-bath is a most excellent way to control the circulation of the blood upon quitting the hot workplace preparatory to going outside. In almost all trades heat can be controlled or kept away from workmen. EXPOSURE TO COLD, pure and simple, is not dangerous to health provided enough clothing is worn and enough active work is performed. Cooling one part of the body while heating another is bad.
6. **DIRT AND DISORDERED SURROUNDINGS** are dangerous to health because they favor disease, obstruct light, make one less inclined to do a high class of work; also to observe health standards, correct habits and good morals, whether at home, at work, or elsewhere.
7. **THE NATURAL DESIRES** create great risks to health—
 1. **THIRST** must be supplied with safe drinking water.
 2. **HUNGER** must be supplied with clean, nourishing food eaten in a place free from poisons.
 3. **TOILETS, URINALS, SEWERAGE** and **GARBAGE** devices must not engender disease.
 4. **SLEEP** must not be disturbed and must last eight hours every night.
 5. **RECREATION** must not be dissipative but recreative.
 6. The desire for **STIMULANTS** is always abnormal to the healthy person; when present it is usually due to the effects of some of the dangers above cited or to a habit acquired through ignorance or bravado. Stimulants include alcohol, coffee, tea and certain drugs.
 7. Make the day the routine of life—don't try to catch up on Sundays only.
- IV. **THE LAST FACTOR** in the cure of this national health decline is that of providing for the cases of sickness which occur. It is **THE RELIEF SCHEME**. Just as we have accident insurance in order to compensate for accidents we should have sickness insurance in order to compensate for sickness. It is best to call this "**HEALTH INSURANCE**" for we wish to maintain health. Such insurance is the real active agent in bringing persons to observe the Laws of Health, to have Physical Examinations made and to see that their Surroundings are Healthful. To bring this about the insurance should be supported by the worker (2/5), by the employer (2/5), and by the state (1/5). By this means every one is financially interested in prolonging health, increasing efficiency and maintaining a high standard of production.

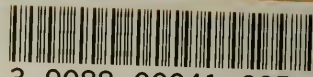
WORK SHOULD PROMOTE HEALTH, NOT DESTROY IT



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